Claims

1) A unit for feeding filters to a filter tip attachment machine, comprising feed means (10) by which filters (3) are introduced, a feed channel (9) along which the filters (3) are advanced, and connected to the outlet end of the channel (9), a dispensing hopper (4) from which the filters (3) are released to an infeed portion (1) of the filter tip attachment machine, characterized in that it comprises an inline storage buffer (16) of variable volume interposed between the feed means (10) and the feed channel (9).

2) A unit as in claim 1, comprising: a receiving hopper (8) associated with the feed means (10) by which the filters (3) are introduced and supplying the feed channel (9); means (31) associated with the receiving hopper (8) and serving to monitor and control the level of the mass of filters (3) occupying the selfsame hopper; and means (39) serving to vary the volume of the variable volume buffer (16), interlocked to the means (31) for monitoring and controlling the level of the mass of filters (3).

3) A unit as in claim 2, wherein the variable volume buffer (16) presents an infeed section associated with the receiving hopper (8), and the volume of the buffer (16) is varied by means (39) comprising a wall (28) capable of movement generated

by respective drive means (23, 24, 27) between a first limit position corresponding to the minimum capacity of the variable volume buffer (16), in which it functions as a wall of the receiving hopper (8), and a second limit position corresponding to the maximum capacity of the buffer (16).

4) A unit as in claim 3, wherein the variable volume buffer (16) is of elongated appearance, extending above and parallel to the feed channel (9) along which the filters (3) advance, and delimited on the underside by a bottom wall extending transversely to the movable wall (28).

5) A unit as in claim 4, wherein the bottom wall is provided by the drive means (23, 24) operating the movable wall (28).

6) A unit as in claim 5, wherein the bottom wall is rigidly associated with the movable wall (28) and consists in the top branch (23) of a conveyor belt (24) associated with a motor (27).

7) A unit as in claims 1 to 6, wherein the feed channel (9) along which the filters (3) advance comprises a conveyor belt (18) extending beneath and parallel to the drive means (23, 24, 27) of the movable wall (28) and associated with respective further drive means (21).

8) A unit as in claim 7, wherein the dispensing hopper (4) comprises respective means (32, 33, 34) serving to monitor and control the level of the mass of filters (3) occupying the selfsame hopper (4), to which the drive means (21) of the conveyor belt (18) are interlocked.

9) A unit as in claims 1 to 8, wherein the variable volume buffer (16) presents two side walls (35, 36) disposed mutually parallel and substantially perpendicular to the bottom wall, and is equipped with means (39) by which to vary the distance between the two side walls (35, 36), so as to allow of changing the transverse dimension of the variable volume buffer (16).

10) A unit as in claims 1 to 9, wherein the feed means (10) introducing the filters (3) comprise at least one diverter device (11) by which the filters (3) are directed transversely to their axes into the receiving hopper (8).

11) A unit as in claims 1 to 9, wherein the feed means (10) introducing the filters (3) comprise at least one device (45) by which the filters (3) are directed axially into the receiving hopper (8)).